ABSTRACT

A cooling device for cooling a cooled surface includes a manifold having a number of inlet slots for directing fluid into an enclosed volume or chamber, toward the cooled surface. The manifold has a number of exit ports for receiving the fluid from the enclosed volume or chamber after it has impinged upon the cooled surface. The inlet slots and exit ports may be rectangular, or may be otherwise elongated, so as to provide substantially spatially uniform heat removal from the cooled surface. The cooling device may be used for a wide variety of applications, for example for cooling small devices such as integrated circuits or other devices involving electronics.